# **Section 1. Registration Information**

#### Source Identification

Facility Name:

Ajinomoto Foods North America

Parent Company #1 Name: Parent Company #2 Name:

# Submission and Acceptance

Submission Type: Re-submission

Subsequent RMP Submission Reason: 5-year update (40 CFR 68.190(b)(1))

Description:

Receipt Date: 09-Nov-2022 Postmark Date: 09-Nov-2022 Next Due Date: 09-Nov-2027 Completeness Check Date: 09-Nov-2022 Yes

Complete RMP:

De-Registration / Closed Reason:

De-Registration / Closed Reason Other Text:

De-Registered / Closed Date:

De-Registered / Closed Effective Date:

Certification Received:

# **Facility Identification**

EPA Facility Identifier:

Other EPA Systems Facility ID: Facility Registry System ID:

1000 0023 6951

#### Dun and Bradstreet Numbers (DUNS)

Facility DUNS:

Parent Company #1 DUNS: 786282921

Parent Company #2 DUNS:

#### **Facility Location Address**

Street 1: 3131 S.Quail Avenue

Street 2:

City: Joplin State: **MISSOURI** ZIP: 64804

ZIP4:

County: **JASPER** 

# Facility Latitude and Longitude

37.055076 Latitude (decimal): -94.394033 Longitude (decimal):

Lat/Long Method: Interpolation - Satellite Center of Facility Lat/Long Description:

Horizontal Accuracy Measure:

Horizontal Reference Datum Name: North American Datum of 1983

Source Map Scale Number:

EPA Facility Identifier: 1000 0023 6951 Plan Sequence Number: 1000103183

# Owner or Operator

Operator Name: Ajinomoto Foods North America

Operator Phone: (909) 477-4700

### **Mailing Address**

Operator Street 1: 4200 Concours Drive

Operator Street 2: Suite #100
Operator City: Ontario
Operator State: CALIFORNIA
Operator ZIP: 91764

Operator ZIP4:

Operator Foreign State or Province:

Operator Foreign ZIP: Operator Foreign Country:

# Name and title of person or position responsible for Part 68 (RMP) Implementation

RMP Name of Person: Vernon Freelend
RMP Title of Person or Position: Maintenance Manager

RMP E-mail Address: vernon.freelend@ajinomotofoods.com

# **Emergency Contact**

Emergency Contact Name:

Emergency Contact Title:

Emergency Contact Phone:

Emergency Contact 24-Hour Phone:

Vernon Freelend

Maintenance Manager

(417) 313-2236

(471) 313-2236

Emergency Contact Ext. or PIN:

Emergency Contact E-mail Address: vernon.freelend@ajinomotofoods.com

#### Other Points of Contact

Facility or Parent Company E-mail Address:

Facility Public Contact Phone:

Facility or Parent Company WWW Homepage

Address:

(909) 477-4700

www.ajinorthamerica.com

#### Local Emergency Planning Committee

LEPC: Jasper County LEPC

### Full Time Equivalent Employees

Number of Full Time Employees (FTE) on Site: 250

FTE Claimed as CBI:

#### Covered By

OSHA PSM: Yes EPCRA 302: Yes

CAA Title V:

EPA Facility Identifier: 1000 0023 6951 Plan Sequence Number: 1000103183

Air Operating Permit ID:

#### **OSHA** Ranking

OSHA Star or Merit Ranking:

# Last Safety Inspection

Last Safety Inspection (By an External Agency)

Date:

Last Safety Inspection Performed By an External

Agency:

01-Apr-2022

Sampo

#### **Predictive Filing**

Did this RMP involve predictive filing?:

### **Preparer Information**

Preparer Name: John Phillips
Preparer Phone: (262) 781-5757

Preparer Street 1: W141N9501 Fountain Blvd.

Preparer Street 2: Preparer City:

Preparer State:
Preparer ZIP:
Preparer ZIP4:

Preparer Foreign State:
Preparer Foreign Country:

Preparer Foreign ZIP:

Menomonee Falls WISCONSIN

53051

# Confidential Business Information (CBI)

CBI Claimed:

Substantiation Provided: Unsanitized RMP Provided:

#### Reportable Accidents

Reportable Accidents:

See Section 6. Accident History below to determine if there were any accidents reported for this RMP.

#### **Process Chemicals**

Process ID: 1000128190

Description: Ammonia Refrigeration

Process Chemical ID: 1000160732

Program Level: Program Level 3 process
Chemical Name: Ammonia (anhydrous)

CAS Number: 7664-41-7

Quantity (lbs): 32024

CBI Claimed:

Flammable/Toxic: Toxic

# **Process NAICS**

Process ID: 1000128190
Process NAICS ID: 1000129584

Program Level: Program Level 3 process

NAICS Code: 311412

NAICS Description: Frozen Specialty Food Manufacturing

# **Section 2. Toxics: Worst Case**

Toxic Worst ID: 1000103483

Percent Weight: 100.0

Physical State: Gas liquified by pressure Model Used: EPA's RMP\*Comp(TM)

Release Duration (mins): 10
Wind Speed (m/sec): 1.5
Atmospheric Stability Class: F
Topography: Urban

#### **Passive Mitigation Considered**

Dikes:

Enclosures: Yes

Berms:
Drains:
Sumps:
Other Type:

# **Section 3. Toxics: Alternative Release**

Toxic Alter ID: 1000109935

Percent Weight: 100.0

Physical State: Gas liquified by pressure Model Used: EPA's RMP\*Comp(TM)

Wind Speed (m/sec): 3.0
Atmospheric Stability Class: D
Topography: Urban

**Passive Mitigation Considered** 

Dikes:
Enclosures:
Berms:
Drains:
Sumps:
Other Type:

**Active Mitigation Considered** 

Sprinkler System: Yes

Deluge System: Water Curtain: Neutralization: Excess Flow Valve:

Flares: Scrubbers:

Emergency Shutdown: Yes

Other Type:

EPA Facility Identifier: 1000 0023 6951 Plan Sequence Number: 1000103183

# **Section 4. Flammables: Worst Case**

EPA Facility Identifier: 1000 0023 6951 Plan Sequence Number: 1000103183

# Section 5. Flammables: Alternative Release

# **Section 6. Accident History**

# Section 7. Program Level 3

# Description

No description available.

# Program Level 3 Prevention Program Chemicals

Prevention Program Chemical ID: 1000138777

Chemical Name: Ammonia (anhydrous)

Flammable/Toxic: Toxic CAS Number: 7664-41-7

Process ID: 1000128190

Description: Ammonia Refrigeration

Prevention Program Level 3 ID: 1000110478 NAICS Code: 311412

# Safety Information

Safety Review Date (The date on which the safety information was last reviewed or revised):

19-Apr-2022

# Process Hazard Analysis (PHA)

PHA Completion Date (Date of last PHA or PHA update):

19-Apr-2022

# The Technique Used

What If:

Checklist:

What If/Checklist:

Yes

HAZOP:

Failure Mode and Effects Analysis:

Fault Tree Analysis: Other Technique Used:

PHA Change Completion Date (The expected or actual date of completion of all changes resulting from last PHA or PHA update):

18-Apr-2025

#### Major Hazards Identified

Toxic Release: Yes Fire: Yes

Explosion: Yes

Runaway Reaction:

Polymerization:

Overpressurization: Yes Yes Corrosion: Overfilling: Yes Contamination: Yes **Equipment Failure:** Yes Loss of Cooling, Heating, Electricity, Instrument Air:

Earthquake:

Floods (Flood Plain):

Tornado: Yes

Hurricanes:

Other Major Hazard Identified:

#### Process Controls in Use

Vents:

Relief Valves: Yes
Check Valves: Yes

Scrubbers: Flares:

Manual Shutoffs: Yes
Automatic Shutoffs: Yes
Interlocks: Yes
Alarms and Procedures: Yes

Keyed Bypass:

Emergency Air Supply:

Emergency Power:YesBackup Pump:YesGrounding Equipment:Yes

Inhibitor Addition: Rupture Disks: Excess Flow Device: Quench System:

Purge System: Yes

None:

Other Process Control in Use:

# Mitigation Systems in Use

Sprinkler System: Yes

Dikes:

Fire Walls:

Blast Walls: Deluge System: Water Curtain:

Enclosure: Yes

Neutralization:

None:

Other Mitigation System in Use:

# Monitoring/Detection Systems in Use

Process Area Detectors: Yes

Perimeter Monitors:

None:

Other Monitoring/Detection System in Use:

# Changes Since Last PHA Update

Reduction in Chemical Inventory:

Increase in Chemical Inventory: Yes

Change Process Parameters:

EPA Facility Identifier: 1000 0023 6951 Plan Sequence Number: 1000103183

Installation of Process Controls:

Installation of Process Detection Systems: Installation of Perimeter Monitoring Systems:

Installation of Mitigation Systems:

None Recommended:

None:

Other Changes Since Last PHA or PHA Update:

# **Review of Operating Procedures**

Operating Procedures Revision Date (The date of the most recent review or revision of operating procedures): 14-Dec-2021

#### **Training**

Training Revision Date (The date of the most recent 14-Apr-2021 review or revision of training programs):

# The Type of Training Provided

Classroom: Yes On the Job: Yes

Other Training:

# The Type of Competency Testing Used

Written Tests: Oral Tests:

Demonstration: Yes
Observation: Yes

Other Type of Competency Testing Used:

#### Maintenance

Maintenance Procedures Revision Date (The date of 14-Apr-2021 the most recent review or revision of maintenance procedures):

Equipment Inspection Date (The date of the most recent equipment inspection or test):

19-Oct-2022

Equipment Tested (Equipment most recently inspected or tested):

Compressor RC-7

# Management of Change

Change Management Date (The date of the most recent change that triggered management of change procedures):

17-Mar-2022

Change Management Revision Date (The date of the most recent review or revision of management of change procedures):

EPA Facility Identifier: 1000 0023 6951 Plan Sequence Number: 1000103183

# **Pre-Startup Review**

Pre-Startup Review Date (The date of the most recent pre-startup review):

03-Oct-2022

#### **Compliance Audits**

Compliance Audit Date (The date of the most recent 14-Apr-2021 compliance audit):

Compliance Audit Change Completion Date (Expected or actual date of completion of all changes resulting from the compliance audit):

01-Apr-2024

### Incident Investigation

Incident Investigation Date (The date of the most recent incident investigation (if any)):

Incident Investigation Change Date (The expected or actual date of completion of all changes resulting from the investigation):

# **Employee Participation Plans**

Participation Plan Revision Date (The date of the most recent review or revision of employee participation plans):

14-Apr-2021

#### Hot Work Permit Procedures

Hot Work permit Review Date (The date of the most 14-Apr-2021 recent review or revision of hot work permit procedures):

# **Contractor Safety Procedures**

Contractor Safety Procedures Review Date (The date of the most recent review or revision of contractor safety procedures):

14-Apr-2021

Contractor Safety Performance Evaluation Date (The date of the most recent review or revision of contractor safety performance):

08-Nov-2022

#### **Confidential Business Information**

CBI Claimed:

# **Section 8. Program Level 2**

EPA Facility Identifier: 1000 0023 6951 Plan Sequence Number: 1000103183

# **Section 9. Emergency Response**

# Written Emergency Response (ER) Plan

Community Plan (Is facility included in written community emergency response plan?):

Yes

Facility Plan (Does facility have its own written emergency response plan?):

Response Actions (Does ER plan include specific actions to be taken in response to accidental releases of regulated substance(s)?):

Public Information (Does ER plan include procedures for informing the public and local agencies responding to accidental release?):

Healthcare (Does facility's ER plan include information on emergency health care?):

#### **Emergency Response Review**

Review Date (Date of most recent review or update of facility's ER plan):

#### **Emergency Response Training**

Training Date (Date of most recent review or update of facility's employees):

#### Local Agency

Agency Name (Name of local agency with which the Jasper County LEPC facility ER plan or response activities are coordinated):

Agency Phone Number (Phone number of local agency with which the facility ER plan or response activities are coordinated):

(417) 624-0820

# Subject to

OSHA Regulations at 29 CFR 1910.38: Yes
OSHA Regulations at 29 CFR 1910.120: Yes
Clean Water Regulations at 40 CFR 112: Yes

RCRA Regulations at CFR 264, 265, and 279.52:

OPA 90 Regulations at 40 CFR 112, 33 CFR 154,

49 CFR 194, or 30 CFR 254:

State EPCRA Rules or Laws: Yes

Other (Specify):

# **Executive Summary**

Description of the Stationary Source and Regulated Substances

Ajinomoto Foods North America, located at 3131 South Quail Avenue, Joplin, MO is a manufacturer of Asian/Ethnic foods and appetizers.

At this facility, anhydrous ammonia (cas #7664-41-7) is used as a refrigerant to cool and freeze product for storage and processing. The refrigeration system at the Joplin, MO facility is a two-stage, closed-loop, mechanical refrigeration system. Liquid ammonia is supplied by pump or pressure to the production and process area evaporators and heat exchangers for cooling and freezing purposes. Ammonia vapor and liquid from the evaporators returns to the suction vessels in the engine room. The normal high-side operating pressure ranges from 130 to 185 psig. The maximum allowable working pressure is 250 to 300 psig. The maximum intended ammonia inventory is 32,024 lbs.

As part of their PSM program, Ajinomoto Foods North America has completed a process hazard analysis, developed written operating procedures, trained employees on awareness and system operation, established procedures to conduct management of change procedures and pre-startup safety reviews, and developed a mechanical integrity program for ammonia refrigeration equipment. In addition to the daily monitoring of the refrigeration process, Ajinomoto Foods North America implements an ongoing preventive maintenance program to ensure the refrigeration equipment and safety systems are maintained in good operating condition.

General Accidental Release Prevention Program and Chemical-Specific Prevention Steps

A PSM program, which meets the requirements of the RMP general accidental release prevention program, is being implemented by Ajinomoto Foods North America to address the anhydrous ammonia refrigeration system at the Joplin, MO facility. The PSM program developed and implemented at Ajinomoto Foods North America includes the following steps:

- ¿ Written plans for implementing employee participation in PSM.
- ¿ Process Safety Information: information pertaining to the hazards of ammonia, the technology of the process and the equipment in the process.
- ¿ Process Hazard Analysis (PHA): A PHA review of the ammonia refrigeration process was conducted to identify hazards and safeguards pertaining to the ammonia refrigeration system.
- ¿ Operating procedures were developed and implemented for the safe operation of the refrigeration system.
- ¿ Safe work practices were developed and implemented for lockout/tagout, confined space and opening equipment and piping.
- ¿ A Mechanical Integrity program is being implemented to maintain the on-going integrity and safety of the refrigeration system, including application of the following industry codes and standards:
- o ASME Boiler & Pressure Valve Codes
- o ANSI B31.3 Piping Code
- o ANSI/IIAR 2-2021 American National Standard for Equipment, Design, and Installation of Closed-Circuit Ammonia Mechanical Refrigerating Systems
- o ANSI/ASHRAE Standard 15
- o NFPA guidelines for fire protection equipment
- ¿ A Management of Change (MOC) program and procedures were developed to address all proposed changes to the refrigeration system.
- ¿ Pre-startup Safety Review (PSSR) procedures were developed.
- ¿ A detailed compliance audit checklist is used to evaluate compliance with the Process Safety Management and Risk Management programs every three years.
- ¿ Developed incident investigation procedures to analyze and review accidents or near-misses involving the refrigeration system.
- ¿ Establish a hot work permit system.
- ¿ Developed and implemented a program to evaluate contractors and contractor employees.

#### Five-Year Accident History

Ajinomoto Foods North America has not had an accidental release from the ammonia refrigeration system that caused deaths, injuries, or significant property damage on site, or known off-site deaths, injuries, evacuations, sheltering in place, property damage or environmental damage within the last five years.

EPA Facility Identifier: 1000 0023 6951 Plan Sequence Number: 1000103183

#### **Emergency Response Program**

Ajinomoto Foods North America employees have not been trained in emergency response and will not respond to emergency ammonia releases. An Emergency Action Plan (EAP) has been developed that includes coordination with local response agencies, procedures for employees to follow in the event of an accidental release of ammonia and a list of emergency phone numbers. Employees have been trained on how to use the plan and drills carried out annually.

#### Planned Changes to Improve Safety

Through the accidental release prevention program, Ajinomoto Foods North America regularly evaluates the need for any changes to improve safety. Currently, there are no changes planned for the anhydrous ammonia refrigeration system.